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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/342,537	06/29/1999	MASUHIRO NATSUHARA	50395-029	6658

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EXAMINER

ELEY, TIMOTHY V

ART UNIT PAPER NUMBER

3724

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/342,537

Applicant(s)

NATSUHARA ET AL.

Examiner

Timothy V Eley

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-8 is/are pending in the application.
- 4a) Of the above claim(s) 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3 and 5-7 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 3724

DETAILED ACTION

*Claim Rejections - 35 USC § 102*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1,3,5, and 6 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's Admitted Prior Art(AAPA), as applied in the rejection filed December 05, 2003.

*Claim Rejections - 35 USC § 103*

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1,3, and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishii'690 in view of AAPA and further in view of Yasuga.

- a. Ishii discloses a method of producing ceramics base plates, which comprises forming a continuous flaw(13A) on at least one surface of a ceramics base plate(13) from end to end using a flawing tool(8) and dividing the ceramics sintered base plate along the flaw by applying an external force.
- b. Ishii does not specifically disclose that the base plate is a ceramic sintered base plate comprising an aluminum nitride having a Vickers hardness of 1,500 Hv or lower or that a flawing tool is used made of diamond.
- c. The AAPA is explained above and teaches flawing and dividing an aluminum nitride sintered base plate having a Vickers hardness of 1,500 Hv or lower.

Art Unit: 3724

d. In addition, Ishii teaches that the ceramic base plate can be relatively thick and the pressure applied by the breaking means is about 10-20 times as large as the pressure in the prior art and therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made that the method of Ishii could have been used to flaw and divide a ceramic sintered base plate having a Vickers hardness of 1,500 Hv or lower in view of the teachings of the AAPA, and since Ishii teaches that the method can be used to break relatively thick plates by applying more pressure at 10-20 times the pressure applied by the prior art and therefore inherently being able to break extra hard materials such as ceramic sintered base plates.

e. Regarding claim 7, Ishii does not disclose using a cooling medium at forming the flaw and at dividing the ceramics base plate and therefore one ordinary skilled in the art can reasonably assess that a cooling medium is not used.

f. Yasuga discloses that it is well known to used a flawing tool made of diamond or a super-hard knife for forming a flaw in tiles.

g. Therefore, would have been obvious to one having ordinary skill in the art at the time the invention was made to have further modified the method of Ishii by using a flawing tool made of diamond for cutting the "ceramic" tile as taught by Yasuga in order to provide for easier cutting of a hard material and to prevent frequent replacement of the flawing tool.

Art Unit: 3724

***Response to Arguments***

5. Applicant's arguments filed March 30, 2004 have been fully considered but they are not persuasive.

a. Applicant argues that, it is not apparent and the Examiner has not identified wherein the acknowledged prior art comprises the manipulative step of forming a flaw to begin with; that cutting halfway through is not forming a flaw; the Examiner may say that "half cutting" is equivalent to a flaw, but that is not what the acknowledged prior art discloses; in fact, forming a flaw is distinguished from "half cutting" in the first paragraph on page 7 of the written description of the specification; thus, it is clear that Applicants have not admitted that conventional practices comprise forming a flaw, let alone a continuous flaw, on at least one surface of a ceramics sintered base plate prior to dividing the ceramics sintered base plate; and the Examiner is not, repeat not, free to arm twist an admission out of Applicants where Applicants did not intend any admission.

i. The argument here essentially is, "exactly what is a flaw?". Apparently, applicant is attempting to take a well-known word and redefine the readily acceptable dictionary definition. It should be noted that Webster's New Collegiate Dictionary (Copyright 1979) define "flaw"(n) as: **a:** a faulty part (as a crack or break) or "flaw"(vt) as: to make flaws in ~ vi: to become defective. Regardless of what applicant says, "half cutting" a ceramic sintered

Art Unit: 3724

base plate produces a "flaw" since "half cutting" provides a crack or break and thus causes the ceramic sintered base plate to become defective. Therefore, the prior art teaches producing a "flaw" in the ceramic sintered base plate by "half cutting" prior to dividing the ceramic sintered base plate.

ii. Note, the examiner did not arm-twist an admission out of the Applicants where Applicants did not intend any admission. Applicants made the admission themselves without intending to.

b. Applicant argues that, Ishii relates to a tile cutter; it is not apparent and the Examiner did not specifically identify wherein Ishii discloses or suggests a ceramic sintered base plate; and The Examiner did not identify anything in the applied prior art which would support the conclusion that any articles contemplated by Ishii would necessarily include ceramic sintered base plates.

i. As stated in the rejection, Ishii teaches that the ceramic base plate can be relatively thick and the pressure applied by the breaking means is about 10-20 times as large as the pressure in the prior art and therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made that the method of Ishii could have been used to flaw and divide a ceramic sintered base plate having a Vickers hardness of 1,500 Hv or lower

Art Unit: 3724

in view of the teachings of the AAPA, and since Ishii teaches that the method can be used to break relatively thick plates by applying more pressure at 10-20 times the pressure applied by the prior art and therefore inherently being able to break extra hard materials such as ceramic sintered base plates.

ii. It should be noted that since ceramic sintered base plates vary in hardness and size, inherently the Ishii method as modified by the AAPA and Yasuga would be able to break some ceramic sintered base plates.

c. Applicant argues that, on page 7 of the December 5, 2003 Office Action, the Examiner advances an interpretation of Ishii as only forming a flaw in the surface of the base plate, but the acknowledged prior art goes to half cutting - not forming a flaw. In the first paragraph on page 7 of the written description of the specification, forming a flaw is distinguished from "half cutting", and accordingly, the attempted nexus between Ishii and the acknowledged prior art is improper.

i. There is indeed a nexus between Ishii and the AAPA since the AAPA teaches that it is known to "flaw" (as explained above) a ceramic sintered base plate, and Ishii teaches providing a "flaw" by applying 10-20 times the force of the prior art, and thus inherently can be used as modified by Yasuga (with a hard diamond edge) to "flaw" a ceramic sintered base plate.

Art Unit: 3724

d. Applicant's arguments with respect to Cotton are deemed moot since a rejection with regard to Cotton has not been applied to the newly amended claims.

*Allowable Subject Matter*

6. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

a. Claim 4 is allowed because nowhere in Ishii nor in the acknowledged prior art is there any disclosure that the depth of a flaw is an art-recognized result effective variable. Therefore, one having ordinary skill in the art would not have selected the appropriate depth of the flaw.

*Conclusion*

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be



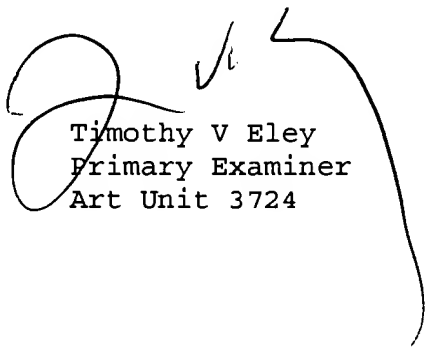
Art Unit: 3724

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy V Eley whose telephone number is 703-308-1824. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N Shoap can be reached on 703-308-1082. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Timothy V Eley  
Primary Examiner  
Art Unit 3724

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